

Listing of claims:

1-17. (canceled)

18. (previously presented) A method of inducing an immune response in a subject in need thereof, comprising administering, to the subject, a composition comprising a conjugate peptide, wherein the conjugate peptide comprises (i) a first portion which binds to a heat shock protein under physiologic conditions, and (ii) a second portion which comprises an antigenic peptide of a pathogen or a neoplasia, wherein a heat shock protein is not concurrently administered with the conjugate peptide, whereby an immune response to said second portion is induced in said subject, said immune response being to an antigen of said pathogen or said neoplasia.

19-27. (canceled)

28. (previously presented) A method of inducing an immune response in a subject in need thereof, comprising administering, to the subject, a composition comprising a conjugate peptide, wherein the conjugate peptide comprises (i) a benzoquinone ansamycin antibiotic, and (ii) an antigenic peptide, whereby an immune response to said antigenic peptide is induced in said subject.

29-30. (canceled)

31. (previously presented) A method of inducing an immune response in a subject in need thereof, comprising administering, to the subject, a composition comprising a conjugate peptide, wherein the conjugate peptide consists of (i) a first portion which is a polypeptide of 7-20 amino acids, which binds to a heat shock protein under physiologic conditions, and (ii) a second portion which comprises an antigenic peptide of a pathogen or a neoplasia, wherein a heat shock protein is not concurrently administered with the conjugate peptide, whereby an immune response to said second portion is induced in said subject, said immune response being to an antigen of said pathogen or said neoplasia.

32. (canceled)

33. (previously presented) The method of claim 18 wherein the first portion is a peptide of 7-20 amino acids.

34. (canceled)
35. (previously presented) The method of claim 18, 31 or 33 wherein the first portion is covalently bound to the second portion.
36. (previously presented) The method of claim 28 wherein the composition is not concurrently administered with a heat shock protein.
37. (previously presented) The method of claim 28 wherein the composition is concurrently administered with a heat shock protein.
38. (previously presented) The method of claim 28 wherein the benzoquinone ansamycin antibiotic is covalently linked to the antigenic peptide.
39. (previously presented) The method of claim 36 wherein the benzoquinone ansamycin antibiotic is covalently linked to the antigenic peptide.
40. (previously presented) The method of claim 37 wherein the benzoquinone ansamycin antibiotic is covalently linked to the antigenic peptide.
41. (previously presented) The method of claim 18, 31 or 33 wherein the conjugate peptide further comprises a peptide linker, said linker separating the first and second portion of the conjugate peptide.
42. (previously presented) The method of claim 28 wherein the conjugate peptide further comprises a peptide linker, said linker separating the benzoquinone ansamycin antibiotic and the antigenic peptide of the conjugate peptide.
43. (previously presented) The method of claim 41 wherein the peptide linker is gly ser gly.
44. (previously presented) The method of claim 42 wherein the peptide linker is gly ser gly.
45. (previously presented) The method of claim 41 wherein said peptide linker can be cleaved by a cellular enzyme.
46. (previously presented) The method of claim 42 wherein said peptide linker can be cleaved by a cellular enzyme.

47. (previously presented) The method of claim 28 wherein the conjugate peptide further comprises a non-peptide linker, said linker separating the benzoquinone ansamycin antibiotic and the antigenic peptide of the conjugate peptide.
48. (previously presented) The method of claim 41 wherein said linker is cleavable by acid, base, light, reduction, oxidation, or a cellular enzyme.
49. (previously presented) The method of claim 42 or 47 wherein said linker is cleavable by acid, base, light, reduction, oxidation, or a cellular enzyme.
50. (previously presented) The method of claim 18, 31 or 33 wherein the second portion is a peptide.
51. (previously presented) The method of claim 18, 31 or 33 wherein said conjugate peptide is in the range of 15-40 amino acids.
52. (previously presented) The method of claim 50 wherein said conjugate peptide is in the range of 15-40 amino acids.
53. (previously presented) The method of claim 50 wherein said conjugate peptide is in the range of 15-25 amino acids.
54. (previously presented) The method of claim 35 wherein the second portion is a peptide.
55. (previously presented) The method of claim 35 wherein said conjugate peptide is in the range of 15-40 amino acids.
56. (previously presented) The method of claim 54 wherein said conjugate peptide is in the range of 15-40 amino acids.
57. (previously presented) The method of claim 54 wherein said conjugate peptide is in the range of 15-25 amino acids.
58. (previously presented) The method of claim 18, 31 or 33 wherein the first portion is HWDFAWPW (SEQ ID NO: 143).

59. (previously presented) The method of claim 18, 31 or 33 wherein the first portion is HyXHyXHyXHy (SEQ ID NO:326) where Hy represents a hydrophobic amino acid and X is any amino acid.
60. (previously presented) The method of claim 35 wherein the first portion is HWDFAWPW (SEQ ID NO: 143).
61. (previously presented) The method of claim 35 wherein the first portion is HyXHyXHyXHy (SEQ ID NO:326) where Hy represents a hydrophobic amino acid and X is any amino acid.
62. (previously presented) The method of claim 41 wherein the first portion is HWDFAWPW (SEQ ID NO: 143).
63. (previously presented) The method of claim 41 wherein the first portion is HyXHyXHyXHy (SEQ ID NO:326) where Hy represents a hydrophobic amino acid and X is any amino acid.
64. (previously presented) The method of claim 50 wherein the first portion is HWDFAWPW (SEQ ID NO: 143).
65. (previously presented) The method of claim 50 wherein the first portion is HyXHyXHyXHy (SEQ ID NO:326) where Hy represents a hydrophobic amino acid and X is any amino acid.
66. (previously presented) The method of claim 51 wherein the first portion is HWDFAWPW (SEQ ID NO: 143).
67. (previously presented) The method of claim 51 wherein the first portion is HyXHyXHyXHy (SEQ ID NO:326) where Hy represents a hydrophobic amino acid and X is any amino acid.
68. (previously presented) The method of claim 54 wherein the first portion is HWDFAWPW (SEQ ID NO: 143).
69. (previously presented) The method of claim 54 wherein the first portion is HyXHyXHyXHy (SEQ ID NO:326) where Hy represents a hydrophobic amino acid and X is any amino acid.

70. (previously presented) The method of claim 55 wherein the first portion is HWDFAWPW (SEQ ID NO: 143).
71. (previously presented) The method of claim 55 wherein the first portion is HyXH₂YXH₂Y (SEQ ID NO:326) where Hy represents a hydrophobic amino acid and X is any amino acid.
72. (previously presented) The method of claim 18, 28, or 31 wherein the composition further comprises one or more adjuvants.
73. (previously presented) The method of claim 18, 28, or 31 further comprising administering to the subject one or more adjuvants.
74. (previously presented) The method of claim 18, 28, or 31 wherein the composition is free of adjuvant.
75. (previously presented) The method of claim 18, 28, or 31 wherein the conjugate peptide is purified.
76. (previously presented) The method of claim 18 or 31 wherein said second portion comprises an antigenic peptide of a neoplasia, and said administering induces an immune response to an antigen of said neoplasia.
77. (previously presented) The method of claim 18 or 31 wherein said second portion comprises an antigenic peptide of a pathogen, and said administering induces an immune response to an antigen of said pathogen.
78. (previously presented) The method of claim 76 wherein the neoplasia is selected from the group consisting of sarcoma, lymphoma, leukemia, melanoma, carcinoma of the breast, carcinoma of the prostate, ovarian carcinoma, carcinoma of the cervix, uterine carcinoma, colon carcinoma, carcinoma of the lung, glioblastoma, and astrocytoma.
79. (previously presented) The method of claim 77 wherein the pathogen is selected from the group consisting of a bacterium, a virus, a protozoan, a mycoplasma, a fungus, a yeast, a parasite, and a prion.
80. (previously presented) The method of claim 77 wherein the pathogen is a bacterium.

81. (previously presented) The method of claim 80 wherein the bacterium is selected from the group consisting of *Salmonella*, *Staphylococcus*, *Streptococcus*, *Enterococcus*, *Clostridium*, *Escherichia*, *Klebsiella*, *Vibrio*, *Mycobacterium*, and *Mycoplasma pneumoniae*.
82. (previously presented) The method of claim 77 wherein the pathogen is a virus.
83. (previously presented) The method of claim 82 wherein the virus is selected from the group consisting of a human papilloma virus, herpes virus, retrovirus, hepatitis virus, influenza virus, rhinovirus, respiratory syncytial virus, cytomegalovirus, adenovirus, herpes simplex virus, herpes zoster virus, human immunodeficiency virus 1, and human immunodeficiency virus 2
84. (previously presented) The method of claim 77 wherein the pathogen is a protozoan.
85. (previously presented) The method of claim 84 wherein the protozoan is selected from the group consisting of an amoeba, a malarial parasite, or *Trypanosoma cruzi*.
86. (previously presented) The method of claim 18, 28 or 31 wherein the administering is subcutaneous, intradermal, intramuscular, intravenous, oral, intranasal, or topical.
87. (previously presented) The method of claim 18, 28 or 31 wherein the administering is repeated at least once.
88. (previously presented) A method of inducing an immune response in a subject in need thereof, comprising administering, to the subject, a composition comprising a conjugate peptide, wherein the conjugate peptide comprises (i) a first portion selected from the group consisting of HWDFAWPW (SEQ ID NO: 143), and (ii) a second portion which comprises an antigenic peptide of a pathogen or a neoplasia, wherein a heat shock protein is not concurrently administered with the conjugate peptide, whereby an immune response to said second portion is induced in said subject, said immune response being to an antigen of said pathogen or said neoplasia.
89. (previously presented) The method of claim 88 wherein said conjugate peptide is in the range of 15-40 amino acids.

90. (previously presented) The method of claim 28, 36, 37, 38, 42, or 47 wherein the benzoquinone ansamycin antibiotic is selected from the group consisting of geldanamycin, herbimycin A, mimosamycin, macmimycin I, and kuwaitimycin.
91. (previously presented) The method of claim 28, 36, 37, 38, 42, or 47 wherein the benzoquinone ansamycin antibiotic is a derivative of geldanamycin, herbimycin A, mimosamycin, macmimycin I, or kuwaitimycin.
92. (previously presented) The method of claim 28 wherein said antigenic peptide is an antigenic peptide of a neoplasia and said administering induces an immune response to an antigen of said neoplasia.
93. (previously presented) The method of claim 28 wherein said antigenic peptide is an antigenic peptide of a pathogen and said administering induces an immune response to an antigen of said pathogen.
94. (previously presented) The method of claim 92 wherein the neoplasia is selected from the group consisting of sarcoma, lymphoma, leukemia, melanoma, carcinoma of the breast, carcinoma of the prostate, ovarian carcinoma, carcinoma of the cervix, uterine carcinoma, colon carcinoma, carcinoma of the lung, glioblastoma, and astrocytoma.
95. (previously presented) The method of claim 93 wherein the pathogen is selected from the group consisting of a bacterium, a virus, a protozoan, a mycoplasma, a fungus, a yeast, a parasite, and a prion.
96. (previously presented) The method of claim 95 wherein the pathogen is a bacterium.
97. (previously presented) The method of claim 95 wherein the pathogen is a virus.
98. (previously presented) The method of claim 97 wherein the virus is selected from the group consisting of a human papilloma virus, herpes virus, retrovirus, hepatitis virus, influenza virus, rhinovirus, respiratory syncytial virus, cytomegalovirus, adenovirus, herpes simplex virus, herpes zoster virus, human immunodeficiency virus 1, and human immunodeficiency virus 2
99. (previously presented) The method of claim 95 wherein the pathogen is a protozoan.